



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0227; Directorate Identifier 2013-NM-211-AD]

RIN 2120-AA64

Airworthiness Directives; Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 95-26-11, which applies to all Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model L-1011 series airplanes. AD 95-26-11 currently requires inspections to detect cracking of the fittings that attach the aft pressure bulkhead to the fuselage stringers, inspections to detect cracking of the fittings and of the splice tab of the aft pressure bulkhead, and corrective actions if necessary. Since we issued AD 95-26-11, we have determined that the fittings at stringer attachments to the upper region of the aft pressure bulkhead are subject to widespread fatigue damage (WFD), which could result in cracking in the aft pressure bulkhead. This proposed AD would reduce the compliance time; add inspections for cracking of certain aft fuselage skin panels; add a structural modification; and also add a post modification inspection program. We are proposing this AD to prevent simultaneous failure of multiple stringer end fittings through fatigue cracking at the aft pressure bulkhead, which could lead to rapid decompression of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, L1011 Technical Support Center, Dept. 6A4M, Zone 0579, 86 South Cobb Drive, Marietta, GA 30063-0579; telephone 770-494-5444; fax 770-494-5445; email L1011.support@lmco.com; Internet <http://www.lockheedmartin.com/ams/tools/TechPubs.html>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0227; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Carl Gray, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5554; fax: 404-474-5605; email: Carl.W.Gray@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0227; Directorate Identifier 2013-NM-211-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Structural fatigue damage is progressive. It begins as minute cracks, and those cracks grow under the action of repeated stresses. This can happen because of normal operational conditions and design attributes, or because of isolated situations or incidents such as material defects, poor fabrication quality, or corrosion pits, dings, or scratches. Fatigue damage can occur locally, in small areas or structural design details, or globally. Global fatigue damage is general degradation of large areas of structure with similar structural details and stress levels. Multiple-site damage is global damage that occurs in a large structural element such as a single rivet line of a lap splice joining two large skin

panels. Global damage can also occur in multiple elements such as adjacent frames or stringers. Multiple-site-damage and multiple-element-damage cracks are typically too small initially to be reliably detected with normal inspection methods. Without intervention, these cracks will grow, and eventually compromise the structural integrity of the airplane, in a condition known as WFD. As an airplane ages, WFD will likely occur, and will certainly occur if the airplane is operated long enough without any intervention.

The FAA's WFD final rule (75 FR 69746, November 15, 2010) became effective on January 14, 2011. The WFD rule requires certain actions to prevent structural failure due to WFD throughout the operational life of certain existing transport category airplanes and all of these airplanes that will be certificated in the future. For existing and future airplanes subject to the WFD rule, the rule requires that design approval holders (DAHs) establish a limit of validity (LOV) of the engineering data that support the structural maintenance program. Operators affected by the WFD rule may not fly an airplane beyond its LOV, unless an extended LOV is approved.

The WFD rule (75 FR 69746, November 15, 2010) does not require identifying and developing maintenance actions if the DAHs can show that such actions are not necessary to prevent WFD before the airplane reaches the LOV. Many LOVs, however, do depend on accomplishment of future maintenance actions. As stated in the WFD rule, any maintenance actions necessary to reach the LOV will be mandated by airworthiness directives through separate rulemaking actions.

In the context of WFD, this action is necessary to enable DAHs to propose LOVs that allow operators the longest operational lives for their airplanes, and still ensure that WFD will not occur. This approach allows for an implementation strategy that provides flexibility to DAHs in determining the timing of service information development (with

FAA approval), while providing operators with certainty regarding the LOV applicable to their airplanes.

On December 18, 1995, we issued AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995), for all Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model L-1011 series airplanes. AD 95-26-11 requires repetitive inspections to detect cracking of the fittings that attach the aft pressure bulkhead to the fuselage stringers, repetitive inspections to detect cracking of the fittings and of the splice tab of the aft pressure bulkhead, and corrective actions if necessary. AD 95-26-11 was prompted by the results of the visual inspections performed in accordance with AD 95-18-52; the inspection results indicated that the visual inspections were inadequate to detect fatigue cracking. AD 95-26-11 superseded AD 95-18-52, Amendment 39-9366 (60 FR 47465, September 13, 1995).

Actions Since AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995) Was Issued

Since we issued AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995), we have determined that the fittings at stringer attachments to the upper region of the aft pressure bulkhead are subject to WFD. If cracks in the stringer end fittings remain undetected, the cracks will propagate until the end fitting is severed. The load in the severed fitting redistributes to the adjacent fittings and, if those fittings have undetected cracks, the increased load will cause those cracks to propagate at a faster rate than the first fitting. This process continues until there are multiple damaged fittings adjacent to one another at which point the membrane and discontinuity loads in the aft pressure dome are redistributed to the fuselage skin by shear-bending of the vertical leg of the aft pressure bulkhead ring inner and outer tee caps. This bending induces a circumferential fatigue crack in the tee cap vertical leg. Once this crack reaches its critical length, the result is a rapid decompression of the airplane during flight.

Relevant Service Information

We reviewed Lockheed Service Bulletin 093-53-105, Revision 3, dated May 31, 2013. This service bulletin describes, among other things, procedures for the following actions.

- For airplanes with a large (47-inch-wide) aft passenger door, a borescope inspection for cracking of the end fittings at stringer locations 12, 13, 53, and 54.
- For airplanes with a large aft passenger door, an eddy current surface scan (ECSS) inspection for cracking of the left and right aft fuselage skin panels and related investigative and corrective action. The related investigative actions include bolt hole eddy current (BHEC), ECSS, and borescope inspections. The corrective actions include repairs.
- For all airplanes, a structural modification consisting of removing and replacing all stringer end fittings at stringers 1 through 14, and 52 through 64. This modification is preceded by an ECSS inspection to detect cracking of the lower (or inner) surface of the upper bonded splice tab of the bulkhead assembly; and a BHEC inspection for cracking of the six fastener holes in the inner tee cap forward flange.
- For all airplanes, a repetitive post-structural modification inspection program consisting of the inspections and, if necessary, the related investigative and corrective actions, specified in paragraph (e) of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995); and end fitting and skin panel inspections, and the related investigative and corrective actions mentioned previously if necessary.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would retain certain requirements of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995). This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between this AD and the Service Information.”

Change to AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995)

Since AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995) was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have changed in this proposed AD, as listed in the following table:

Revised paragraph identifiers

Requirement in AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995)	Corresponding requirement in this proposed AD
paragraph (a)	paragraph (g)
paragraph (c)	paragraph (h)
paragraph (d)	paragraph (i)
paragraph (e)	paragraph (j)
paragraph (f)	paragraph (l)
paragraph (g)	paragraph (m)

Differences Between this Proposed AD and the Service Information

Although Lockheed Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, specifies that operators may contact the manufacturer for disposition of certain repair conditions, this proposed AD would require operators to repair those conditions in accordance with a method approved by the FAA.

Explanation of Compliance Time

The compliance time for the modification specified in this proposed AD for addressing WFD was established to ensure that discrepant structure is modified before WFD develops in airplanes. Standard inspection techniques cannot be relied on to detect WFD before it becomes a hazard to flight. We will not grant any extensions of the compliance time to complete any AD-mandated service bulletin related to WFD without extensive new data that would substantiate and clearly warrant such an extension.

Costs of Compliance

We estimate that this proposed AD affects 26 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections [actions retained from AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995)]	23 work-hours X \$85 per hour = \$1,955 per inspection cycle	\$0	\$1,955 per inspection cycle	\$50,830 per inspection cycle
Inspections and modification [new proposed action]	185 work-hours X \$85 per hour = \$15,725	\$6,750	\$22,475	\$584,350

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement of one fitting	16 work-hour X \$85 per hour = \$1,360	\$250	\$1,610

We have received no definitive data that would enable us to provide cost estimates for the other on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Amend § 39.13 by removing Airworthiness Directive (AD) 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995), and adding the following new AD:

Lockheed Martin Corporation/Lockheed Martin Aeronautics Company: Docket No. FAA-2014-0227; Directorate Identifier 2013-NM-211-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995).

(c) Applicability

This AD applies to all Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model L-1011-385-1, L-1011-385-1-14, L-1011-385-1-15, and L-1011-385-3 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by a determination that the fittings at stringer attachments to the upper region of the aft pressure bulkhead are subject to widespread fatigue damage (WFD). We are issuing this AD to prevent simultaneous failure of multiple stringer end fittings through fatigue cracking at the aft pressure bulkhead, which could lead to rapid decompression of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Detailed Visual Inspection

This paragraph restates the requirements of paragraph (a) of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995), with no changes. Perform a detailed visual inspection to detect cracking of the fittings that attach the aft pressure bulkhead to the fuselage stringers (hereinafter referred to as “fittings”) at stringers 1 through 10 (right side) and at stringers 56 through 64 (left side), at the later of the times specified in either paragraph (g)(1) or (g)(2) of this AD.

(1) Prior to the accumulation of 20,000 total flight cycles; or

(2) Within the next 25 flight cycles or 10 days after September 28, 1995 (the effective date of AD 95-18-52, Amendment 39-9366 (60 FR 47465, September 13, 1995)), whichever occurs earlier.

(h) Retained Corrective Action for Cracked Fitting

This paragraph restates the requirements of paragraph (c) of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995), with no changes. If any cracked fitting is detected during the inspection required by paragraph (g) of this AD: Before further flight, accomplish the requirements of paragraphs (h)(1) and (h)(2) of this AD.

(1) Replace the cracked fitting with a new fitting, or with a serviceable fitting on which a detailed visual inspection has been performed previously to detect cracking and that has been found to be free of cracks.

(2) Perform a detailed visual inspection to detect cracking in the radius at the lower end of the vertical leg of the bulkhead T-shaped frame between the stringer locations on either side of the stringer having the cracked fitting. If any cracked T-shaped frame is detected: Before further flight, repair in accordance with a method approved by the Manager, Atlanta Aircraft Certification Office (ACO), FAA.

(i) Retained Repetitive Fitting Inspections

This paragraph restates the requirements of paragraph (d) of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995), with no changes. Repeat the inspections and other necessary actions required by paragraphs (g) and (h) of this AD at intervals not to exceed 1,800 flight cycles or 3,000 flight hours, whichever occurs earlier, until paragraph (j) of this AD is accomplished.

(j) Retained Eddy Current Surface Scan (ECSS) Inspections, and Related Investigative and Corrective Actions

This paragraph restates the requirements of paragraph (e) of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995), with revised compliance times specified in paragraph (k) of this AD, exclusion of an ECSS inspection for certain airplanes, and new service information. Except as provided by paragraph (l) of this AD:

At the applicable time specified in paragraph (k)(1) of this AD, accomplish the requirements of paragraphs (j)(1) and (j)(2) of this AD. Repeat the ECSS inspections thereafter at the compliance time specified in paragraph (k)(2) of this AD.

Accomplishment of the ECSS inspection constitutes terminating action for the repetitive inspection requirements of paragraph (i) of this AD.

(1) Perform an ECSS inspection to detect cracking of the fittings at stringers 1 through 14 (right side) and at stringers 52 through 64 (left side), in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 1, dated November 17, 1995; or Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013; except for airplanes with a large (47-inch-wide) aft passenger door, an ECSS inspection of stringers 12, 13, 53, and 54 is not required by this paragraph. Except as provided by paragraph (m) of this AD, if any cracking is detected, prior to further flight, replace the fitting with a new fitting without pilot holes, rework the fitting, and perform various follow-on actions (i.e., bolt hole eddy current, ECSS, and borescope inspections; and repair) of the inner and outer tee caps, in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 1, dated November 17, 1995; or Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, except as required by paragraph (p) of this AD. As of the effective date of this AD, use only Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, for accomplishing the actions required by this paragraph.

(2) Perform an ECSS inspection to detect cracking of the lower (or inner) surface of the upper bonded splice tab of the bulkhead assembly at stringers 1 through 14 (right side) and at stringers 52 through 64 (left side), in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 1, dated November 17, 1995; or Lockheed L-1011 Service Bulletin 093-53-105, Revision 3,

dated May 31, 2013. As of the effective date of this AD, use only Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, for accomplishing the actions required by this paragraph.

(i) Except as provided by paragraph (m) of this AD, if any cracking is detected at the upper bonded splice tab, repair in accordance with a method approved by the Manager, Atlanta ACO, FAA.

(ii) Except as provided by paragraph (m) of this AD, if any cracking is detected at a fastener, prior to further flight, perform a bolt hole eddy current (BHEC) inspection to detect cracking of the forward flange of the inner tee cap, in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 1, dated November 17, 1995; or Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013. If any cracking is detected, prior to further flight, repair in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 1, dated November 17, 1995; or Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, except as required by paragraph (p) of this AD. As of the effective date of this AD, use only Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, for accomplishing the actions required by this paragraph.

(k) Revised Compliance Times for Paragraph (j) of this AD

(1) Do the initial inspections required by paragraph (j) of this AD at the earlier of the times specified in paragraphs (k)(1)(i) and (k)(1)(ii) of this AD.

(i) Prior to the accumulation of 20,000 total flight cycles, or within 30 days after January 11, 1996 (the effective date of date of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995)), whichever occurs later.

(ii) At the later of the times specified in paragraphs (k)(1)(ii)(A) and (k)(1)(ii)(B) of this AD.

(A) Before the accumulation of 13,875 total flight cycles.

(B) Within 365 days or 1,000 flight cycles after the effective date of this AD, whichever occurs first.

(2) Repeat the inspections specified in paragraph (j) of this AD within 2,500 flight cycles after accomplishing the most recent inspection required by paragraph (j) of this AD, and repeat the inspection thereafter at intervals not to exceed 1,750 flight cycles.

(l) Retained Inspection Deferral for Paragraph (j) of this AD

This paragraph restates the requirements of paragraph (f) of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995). Accomplishment of the initial ECSS inspections required by paragraph (j) of this AD may be deferred to a date within 120 days after January 11, 1996 (the effective date of date of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995)), provided that, in the interim, a visual inspection as specified in paragraph (g) of this AD is accomplished within 30 days after January 11, 1996 (the effective date of date of AD 95-26-11), and repeated thereafter at intervals not to exceed 50 flight cycles. Once the ECSS inspections begin, the visual inspections may be terminated.

(m) Retained Inspection Deferral with Revised Compliance Time and New Deferral

This paragraph restates the requirements of paragraph (g) of AD 95-26-11, Amendment 39-9469 (60 FR 66870, December 27, 1995), with a revised compliance time, service information, and a new deferred action.

(1) If two or more adjacent fittings on both sides of the cracked fittings or bonded splice tabs/fasteners are determined to be free of cracks by the ECSS inspection required by paragraphs (j)(1) and (j)(2) of this AD, repeat the ECSS inspection of the adjacent fittings thereafter at intervals not to exceed 600 flight cycles until the cracked fittings or

splice tabs/fasteners are replaced or repaired, in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 1, dated November 17, 1995; or Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013. At the applicable time specified in paragraphs (m)(1)(i) and (m)(1)(ii) of this AD: Replace the cracked fitting and/or splice tab/fasteners, in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 1, dated November 17, 1995; or Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013. As of the effective date of this AD, use only Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, for accomplishing the actions required by this paragraph.

(i) For any crack found before the effective date of this AD: Within 2,500 flight cycles after finding the crack.

(ii) For any crack found on or after the effective date of this AD: Within 1,750 flight cycles after finding the crack, but no later than before the accumulation of 20,800 total flight cycles.

(2) If two or more adjacent fittings on both sides of the cracked fittings or bonded splice tabs/fasteners are determined to be free of cracks by the ECSS inspection required by paragraphs (j)(1) and (j)(2) of this AD, the follow-on inspection (i.e., bolt hole eddy current, ECSS, and borescope inspections) of the inner and outer tee caps required by paragraph (j)(1) of this AD may also be deferred until the cracked fittings are replaced as required by paragraph (m)(1) of this AD, but no later than before the accumulation of 20,800 total flight cycles.

(n) New Repetitive Borescope Inspections of Certain End Fittings and Corrective Actions

For airplanes with a large (47-inch-wide) aft passenger door: At the later of the times specified in paragraphs (n)(1) and (n)(2) of this AD, do a borescope inspection for cracking of the stringer end fittings at stringer locations 12, 13, 53, and 54; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of Lockheed Service Bulletin 093-53-105, Revision 3, dated May 31, 2013; except as specified in paragraph (p) of this AD. Do all applicable related investigative and corrective actions before further flight, except as provided by paragraph (q) of this AD. Repeat the inspection of the stringer end fittings thereafter at intervals not to exceed 1,750 flight cycles until the actions required by paragraph (r) of this AD have been done.

(1) Before the accumulation of 13,875 total flight cycles.

(2) Within 365 days or 1,000 flight cycles after the effective date of this AD, whichever occurs earlier.

(o) New Repetitive Borescope Inspections of Fuselage Skin Panels

For airplanes with a large (47-inch-wide) aft passenger door: At the later of the times specified in paragraphs (o)(1) and (o)(2) of this AD, do an ECSS inspection for cracking of the left and right aft fuselage skin panels; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of Lockheed Service Bulletin 093-53-105, Revision 3, dated May 31, 2013; except as specified in paragraph (p) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection of the aft fuselage skin panels thereafter at intervals not to exceed 1,750 flight cycles until the actions required by paragraph (q) of this AD have been done.

(1) Before the accumulation of 13,875 total flight cycles.

(2) Within 365 days or 1,000 flight cycles after the effective date of this AD, whichever occurs first.

(p) New Service Information Exception

If any cracking is found during any inspection required by this AD, and Lockheed Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, specifies contacting Lockheed for appropriate action: Before further flight, repair the cracking in accordance with a method approved by the Manager, Atlanta ACO, FAA. As of the effective date of this AD, for a repair method to be approved by the Manager, Atlanta ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(q) New Deferral

(1) If two or more adjacent fittings on both sides of the cracked fittings or bonded splice tabs/fasteners are determined to be free of cracks by the ECSS inspection required by paragraph (o) of this AD, repeat the ECSS inspection of the adjacent fittings thereafter at intervals not to exceed 600 flight cycles until the cracked fittings or splice tabs/fasteners are replaced or repaired, in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013. Within 1,750 flight cycles after finding the crack, but no later than before the accumulation of 20,800 total flight cycles, replace the cracked fitting and/or splice tab/fasteners, in accordance with the Accomplishment Instructions of Lockheed L-1011 Service Bulletin 093-53-105, Revision 3, dated May 31, 2013.

(2) If two or more adjacent fittings on both sides of the cracked fittings or bonded splice tabs/fasteners are determined to be free of cracks by the ECSS inspection required by paragraph (o) of this AD, the related investigative actions (inspections of the inner and outer tee caps) required by paragraph (n) of this AD may also be deferred until the

cracked fittings are replaced as required by paragraph (q)(1) of this AD, but no later than before the accumulation of 20,800 total flight cycles.

(r) New Pre-structural Modification Inspections and Structural Modification

Before the accumulation of 20,800 total flight cycles: Do the applicable actions specified in paragraphs (r)(1) and (r)(2) of this AD.

(1) Perform pre-structural modification inspections by doing the actions required by paragraphs (j), (n), and (o) of this AD.

(2) Perform a structural modification of the aft pressure bulkhead by removing and replacing all stringer end fittings with new or refurbished fittings at stringers 1 through 14, and 52 through 64, in accordance with the Accomplishment Instructions of Lockheed Service Bulletin 093-53-105, Revision 3, dated May 31, 2013.

(s) New Post-structural Modification Repetitive Inspections

Within 13,875 flight cycles after performing the actions required by paragraph (r)(2) of this AD: Do the actions specified in paragraphs (j), (n), and (o) of this AD, and repeat thereafter at intervals not to exceed 13,875 flight cycles.

(t) No Reporting Requirement

Although Lockheed Service Bulletin 093-53-105, Revision 3, dated May 31, 2013, referenced in this AD specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(u) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (v)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(v) Related Information

(1) For more information about this AD, contact Carl Gray, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5554; fax: 404-474-5605; email: carl.w.gray@faa.gov.

(2) For service information identified in this AD, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, L1011 Technical Support Center, Dept. 6A4M, Zone 0579, 86 South Cobb Drive, Marietta, GA 30063-0579; telephone 770-494-5444; fax 770-494-5445; email L1011.support@lmco.com; Internet <http://www.lockheedmartin.com/ams/tools/TechPubs.html>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

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